

Nakatsuyama patent broadcasts each user-requested program at a unique predetermined time or times (i.e., repeat broadcasts can be used). The Nakatsuyama patent sends index data comprising user-specific data to receivers to tell the receivers which channel to tune to and what time to receive the requested content. The present invention does not employ such an index signal, but rather rebroadcasts on-demand files, and configures receivers to track which file segments have not yet been received and to continue to monitor for receipt of those segments until all segments are accounted for and stored. Such monitoring is facilitated by the use of segment headers comprising information such as the total number of segments that make up a file and segment identifiers (e.g., segment numbers) that distinguish the segments in a particular file.

As recited in independent claim 1, content files transmitted in a digital broadcast system are partitioned into content segments. Claim 1 further recites control data transmitted with content segments whereby the control data indicates which content segments relate to which content files, "*the total number of said content segments that constitute at least one of said content files, and segment identifiers to distinguish each of said content segments that belong in said at least one of said content files* (emphasis added)," among other features. Similarly, independent claim 8 recites on-demand data files transmitted in a digital broadcast system that are partitioned into segments. Claim 8 further recites segment information data transmitted with the segments whereby the segment information indicates which segments relate to which on-demand data files, "*the total number of said segments that constitute at least one of said on-demand data files, and segment identifiers to distinguish each of said segments that belong in said at least one of said on-demand data files* (emphasis added)," among other features.

The Office Action does not provide a reference to a portion of the Nakatsuyama patent that purportedly discloses control data or segment information that indicates "the total number of" segments that constitute at least one of the broadcast files, or segment identifiers to distinguish each of the segments that belong in at least one of the broadcast files. The Office Action merely purports that the

Nakatsuyama patent discloses "segment info" by referencing column 9, lines 10-45 and column 10, lines 25-47 in the Nakatsuyama patent, but neither of these sections teaches control data that indicates the total number of segments that constitute at least one of said files, and segment identifiers to distinguish each of said segments that belong in said at least one of said files, as recited in claims 1 and 8. The Office Action also refers, in particular, to lines 26-35 of column 10 in the Nakatsuyama patent and Fig. 4C therein as purportedly teaching reception of segment data based on the number of segments in a string and segment identifiers in each data string.

With regard to the referenced text in column 9 and Fig. 3 of the Nakatsuyama patent, each block  $U_n$  is for a different user and each line 106 and 108 in field 104 is for a different program selected by that user. The length 116 of the program is the "program data size" in terms of memory capacity (see column 9, lines 32-34 of the Nakatsuyama patent). There is no mention in the Nakatsuyama patent of a block  $U_n$  or other control data that provides the number of frames  $P_n$  that constitute a program selected by the user. The identifier 102 in Fig. 3 merely identifies the user who requested the program(s) and has nothing to do with distinguishing content segments as claimed. With reference to Fig. 4C of the Nakatsuyama patent, the program frames do not comprise control data as claimed. In other words, the program frames  $P_n$  do not indicate the number of frames that constitute the program, nor identifiers that distinguish each frame from other frames in a program.

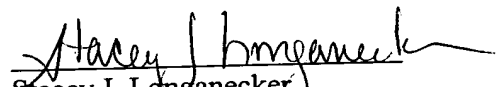
Column 10, lines 25-47 in the Nakatsuyama patent disclose that a program  $P_1$  can be divided into two parts and broadcast as frames containing segments  $P_{1A}$  and  $P_{1B}$ . The Nakatsuyama patent also discloses that a receiver can concatenate segments  $P_{1A}$  and  $P_{1B}$  to reconstruct that program  $P_1$ . Such concatenation, however, as disclosed in the Nakatsuyama patent does not expressly or inherently teach control data as claimed such as the total number of segments that constitute the program. For example, such concatenated segments can be provided with a program identifier to facilitate reception by allowing a receiver to keep segments for a selected program based on program identifier and to discard remaining segments. The segments, however, would not necessarily have to be transmitted with segment information

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comprising the total number of segments that constitute a partitioned file. Nothing in Fig. 4C or in column 10, lines 26-35 of the Nakatsuyama patent discloses a total number for segments  $P_{1A}$  and  $P_{1B}$  or identifiers therefor in the use or index data (e.g., Fig. 3 of the Nakatsuyama patent). In fact, the Nakatsuyama patent does not even suggest control data as claimed. Applicants respectfully submit that the use of segment information as claimed (e.g., segment identifiers and total number of content segments in a file) is more advantageous than the broadcasting of a separate index signal, as disclosed in the Nakatsuyama patent, which merely identifies when a user-requested program is being rebroadcast. The separate index signal, as disclosed in the Nakatsuyama patent, does not indicate the number of segments that constitute a program to facilitate determining how much of the user-requested program has already been saved. As described in column 6, lines 22-34 of the Nakatsuyama patent, each subframe corresponding to a particular receiver in the user index signal merely comprises channel and time stamp information to tell that receiver when to tune to the channel to receive the user-requested information.

In view of the above, withdrawal of the 35 U.S.C. § 102(e) rejection of claims 1, 2, 8, 9, 12 and 13 is believed to be proper and is respectfully requested. Accordingly, it is believed that the application is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully Submitted,

  
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